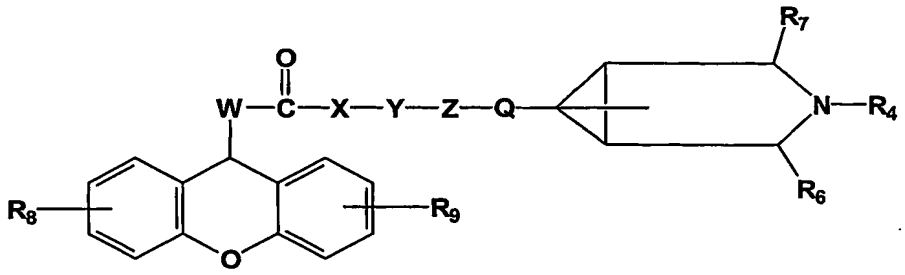
WE CLAIM:

1. A compound having the structure of Formula I



Formula I

and its pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs, metabolites, wherein:

W represents $(CH_2)_p$, where p represents 0 to 1;

X represents an oxygen, sulphur, -NR or no atom, wherein R represent hydrogen or C_{1-6} alkyl;

Y represents CHR_1CO, wherein R_1 represents hydrogen or methyl or $(CH_2)q$ wherein q represents 0 to 4;

Z represents oxygen, sulphur, NR_2, wherein R_2 represents hydrogen or C_{1-6} alkyl;

Q represents $(CH_2)n$ wherein n represents 0 to 4, or CHR_3 wherein R_3 represents H, OH, C_{1-6} alkyl, C_{1-6} alkenyl, C_{1-6} alkoxy or CH_2CHR_5 wherein R_5 represents H, OH, lower alkyl (C_1-C_4) or lower alkoxy (C_1-C_4);

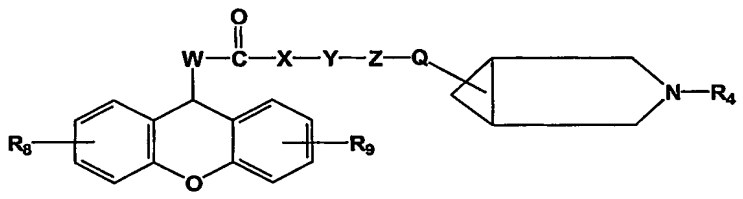
R_4 represents hydrogen, C_1-C_{15} saturated or unsaturated aliphatic hydrocarbon groups in which any 1 to 6 hydrogen atoms may be substituted with the group independently selected from halogen, arylalkyl, arylalkenyl, heteroarylalkyl or heteroarylalkenyl having 1 to 2 hetero atoms selected from a group consisting of nitrogen, oxygen and sulphur atoms with option that any 1 to 3 hydrogen atoms on the ring in said arylalkyl, arylalkenyl, hetero arylalkenyl group may be substituted with lower alkyl (C_1-C_4), lower perhalo alkyl (C_1-C_4), cyano, hydroxyl, nitro, lower alkoxycarbonyl, halogen, lower alkoxy (C_1-C_4), lower

perhaloalkoxy (C_1-C_4), unsubstituted amino, N-lower alkylamino (C_1-C_4) or N-lower alkylamino carbonyl (C_1-C_4);

R_6 and R_7 are independently selected from H, COOH, CH_3, $CONH_2$, NH_2 or CH_2NH_2; and

R_8 and R_9 are independently selected from a group consisting of hydrogen, lower alkyl (C_1-C_4), trifluoromethyl, cyano, halogen, hydroxy, nitro, lower alkoxy (C_1-C_4), amino or lower alkylamino.

2. The compound according to claim 1 having the structure of Formula II and its pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs, metabolites wherein R_8, R_9, R_4, W, X, Y, Z, Q are the same as defined for Formula I



Formula II

3. A compound selected from the group consisting of

9H-Xanthene-9-carboxylic acid-(3-benzyl)-3-azabicyclo[3.1.0]-hex-6-yl]amide;

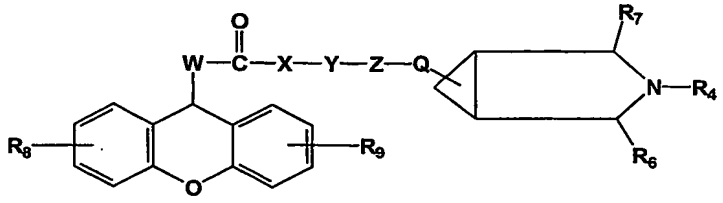
9H-Xanthene-9-carboxylic acid-[3-(4-cyanobenzyl)-3-azabicyclo[3.1.0]-hex-6-yl] amide;

9H-Xanthene-9-carboxylic acid-[(3-benzyl)-3-azabicyclo[3.1.0]-hex-6-yl-methyl] amide; and

9H-Xanthene-9-carboxylic acid-[(3-benzyl)-3-azabicyclo[3.1.0]-hex-1-yl-methyl]-amide.

4. A pharmaceutical composition comprising a pharmaceutically effective amount of a compound as defined in claim 1, 2 or 3 together with pharmaceutically acceptable carriers, excipients or diluents.

5. A method for treatment or prophylaxis of an animal or a human suffering from a disease or disorder of the respiratory, urinary and gastrointestinal systems, wherein the disease or disorder is mediated through the muscarinic receptors, comprising administering to said animal or human, a therapeutically effective amount of a compound having the structure of Formula I,



Formula I

or its pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs, metabolites, wherein;

W represents $(CH_2)_p$, where p represents 0 to 1;

X represents an oxygen, sulphur, -NR or no atom, wherein R represents hydrogen or C_{1-6} alkyl;

Y represents CHR_1CO, wherein R_1 represents hydrogen or methyl or $(CH_2)q$ wherein q represents 0 to 4;

Z represents oxygen, sulphur, NR_2, wherein R_2 represents hydrogen or C_{1-6} alkyl;

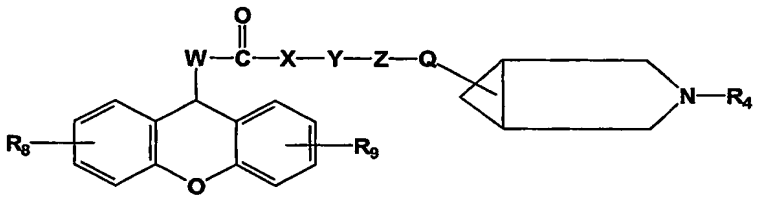
Q represents $(CH_2)_n$ wherein n represents 0 to 4, or CHR_3 wherein R_3 represents H, OH, C_{1-6} alkyl, C_{1-6} alkenyl, C_{1-6} alkoxy or CH_2CHR_5 wherein R_5 represents H, OH, lower alkyl (C_1-C_4) or lower alkoxy (C_1-C_4);

R_4 represents hydrogen, C_1-C_{15} saturated or unsaturated aliphatic hydrocarbon groups in which any 1 to 6 hydrogen atoms may be substituted with the group independently selected from halogen, arylalkyl, arylalkenyl, heteroarylalkyl or heteroarylalkenyl having 1 to 2 hetero atoms selected from a group consisting of nitrogen, oxygen and sulphur atoms with option that any 1 to 3 hydrogen atoms on the ring in said arylalkyl, arylalkenyl, hetero arylalkenyl group may be substituted with lower alkyl (C_1-C_4), lower perhalo alkyl (C_1-C_4), cyano, hydroxyl, nitro, lower alkoxycarbonyl, halogen, lower alkoxy (C_1-C_4), lower perhaloalkoxy (C_1-C_4), unsubstituted amino, N-lower alkylamino (C_1-C_4) or N-lower alkylamino carbonyl (C_1-C_4);

R_6 and R_7 are independently selected from H, COOH, CH_3, $CONH_2$, NH_2 or CH_2NH_2;

R_8 and R_9 are independently selected from a group consisting of hydrogen, lower alkyl (C_1-C_4), trifluoromethyl, cyano, halogen, hydroxy, nitro, lower alkoxy (C_1-C_4), amino or lower alkylamino.

6. The method according to claim 5 for treatment or prophylaxis of an animal or a human suffering from a disease or disorder of the respiratory, urinary and gastrointestinal systems, wherein the disease or disorder is mediated through the muscarinic receptors, comprising administering to said animal or human, a therapeutically effective amount of a compound having the structure of Formula II, and its pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, polymorphs, or metabolites, wherein R_8, R_9, R_4, W,X,Y,Z and Q are the same as defined for Formula I.



Formula II

(Formula I, R_6=R_7=H)

7. The method according to claim 5 wherein the disease or disorder is urinary incontinence, lower urinary tract symptoms (LUTS), bronchial asthma, chronic obstructive pulmonary disorders (COPD), pulmonary fibrosis, irritable bowel syndrome, obesity, diabetes, and gastrointestinal hyperkinesis.

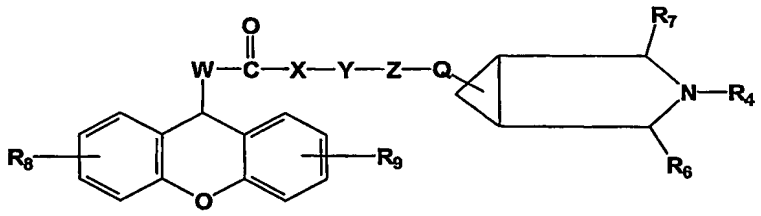
8. The method according to claim 6 wherein the disease or disorder is urinary incontinence, lower urinary tract symptoms (LUTS), bronchial asthma, chronic obstructive pulmonary disorders (COPD), pulmonary fibrosis, irritable bowel syndrome, obesity, diabetes, and gastrointestinal hyperkinesis.

9. The method for treatment or prophylaxis of an animal or a human suffering from a disease or disorder of the respiratory, urinary, and gastrointestinal systems, wherein the disease or disorder is mediated through the muscarinic receptors, comprising

administering to said animal or human, a therapeutically effective amount of the pharmaceutical composition according to claim 4.

10. The method according to claim 9 whrein the disease or disorder is urinary incontinence, lower urinary tract symptoms (LUTS), bronchial asthma, chronic obstructive pulmonary disorders (COPD), pulmonary fibrosis, irritable bowel syndrome, obesity, diabetes, and gastrointestinal hyperkineses.

11. A process of preparing a compound of Formula I



Formula I

and its pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs, metabolites, wherein;

W represents $(CH_2)_p$, where p represents 0 to 1;

X represents an oxygen, sulphur, -NR or no atom; wherein R represents hydrogen or C_{1-6} alkyl;

Y represents CHR_1CO, wherein R_1 represents hydrogen or methyl or $(CH_2)q$ wherein q represents 0 to 4;

Z represents oxygen, sulphur, NR_2, wherein R_2 represents hydrogen or C_{1-6} alkyl;

Q represents $(CH_2)_n$ wherein n represents 0 to 4, or CHR_3 wherein R_3 represents H, OH, C_{1-6} alkyl, C_{1-6} alkenyl, C_{1-6} alkoxy or CH_2CHR_5 wherein R_5 represents H, OH, lower alkyl (C_1-C_4) or lower alkoxy (C_1-C_4);

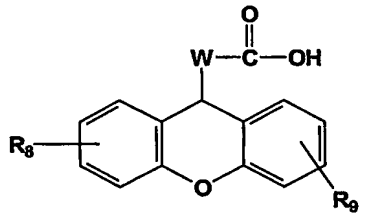
R_4 represents hydrogen, C_1-C_{15} saturated or unsaturated aliphatic hydrocarbon groups in which any 1 to 6 hydrogen atoms may be substituted with the group independently selected from halogen, arylalkyl, arylalkenyl, heteroarylalkyl or heteroarylalkenyl having 1 to 2 hetero atoms selected from a group consisting of nitrogen, oxygen and sulphur atoms with option that any 1 to 3 hydrogen atoms on the ring in said arylalkyl, arylalkenyl, hetero arylalkenyl group may be substituted with lower alkyl (C_1-C_4), lower perhalo alkyl (C_1-C_4), cyano,

hydroxyl, nitro, lower alkoxycarbonyl, halogen, lower alkoxy (C_1-C_4), lower perhaloalkoxy (C_1-C_4), unsubstituted amino, N-lower alkylamino (C_1-C_4) or N-lower alkylamino carbonyl (C_1-C_4);

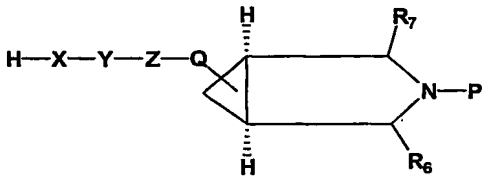
R_6 and R_7 are independently selected from H, COOH, CH_3, $CONH_2$, NH_2 or CH_2NH_2; and

R_8 and R_9 are independently selected from a group consisting of hydrogen, lower alkyl (C_1-C_4), trifluoromethyl, cyano, halogen, hydroxy, nitro, lower alkoxy (C_1-C_4), amino or lower alkylamino, comprising

a) condensing a compound of Formula III with a compound of Formula IV

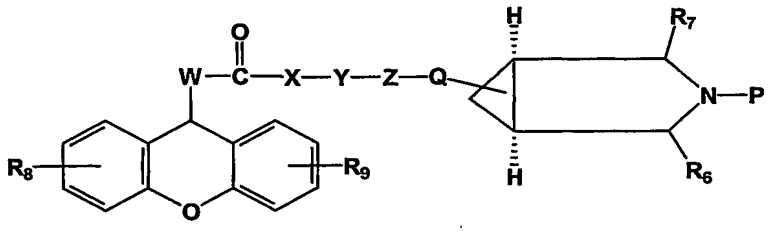


Formula III



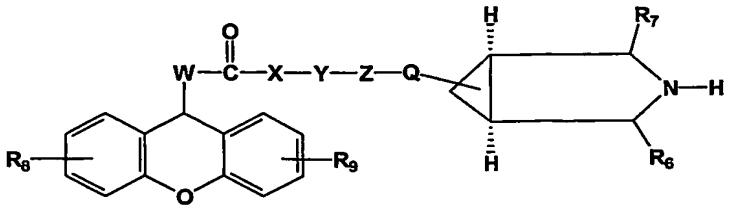
Formula IV

wherein W,X,Y,Z, Q, R_7, R_6, R_9, R_8 have the same meanings as defined earlier forFormula I, to give a protected compound of Formula V, wherein P is a protecting group for an amino group,



Formula V

b) deprotecting the compound of Formula V in the presence of a deprotecting agent to give an unprotected intermediate of Formula VI wherein R_6,R_7,R_8,R_9, W,X,Y,Z,Q are the same as defined earlier, and



Formula VI

c) the intermediate of Formula VI is N-alkylated or benzylated with a suitable alkylating or benzylating agent, L-R_4 wherein L is any leaving group, to give a compound of Formula I wherein R_4, R_8,R_9,R_6,R_7, W,X,Y,Z,Q are the same as defined earlier.

12. The process according claim 11 wherein P is selected from the group consisting of benzyloxy and t-butyloxy carbonyl groups.

13. The process according to claim 11 wherein the reaction of a compound of Formula III with a compound of Formula IV to give a compound of Formula V is carried out in a suitable condensing agent which is selected from the group consisting of 1-(3-dimethylamino propyl)-3-ethyl carbodiimide hydrochloride (EDC) and 1,8-diazabicyclo [5.4.0] undec-7-ene (DBU).

14. The process according to claim 11 wherein the reaction of a compound of Formula III with a compound of Formula IV to give a compound of Formula V is carried out in the presence of a suitable solvent selected from the group consisting of N,N dimethylformamide, dimethyl sulphoxide, toluene and xylene.

15. The process according to claim 11 wherein the reaction of a compound of Formula III with a compound of Formula IV is carried out at a temperature ranging from about 0-140°C.

16. The process according to claim 11 wherein the deprotection of a compound of Formula V to give a compound of Formula VI is carried out with a deprotecting agent which is selected from the group consisting of palladium on carbon, trifluoroacetic acid and hydrochloric acid.

17. The process according to claim 11 wherein the deprotection of a compound of Formula V to give a compound of Formula VI is carried out in a suitable solvent selected from the group consisting of methanol, ethanol, tetrahydrofuran, and acetonitrile.

18. The process according to claim 11 wherein the N alkylation or benzylation of a compound of Formula VI to give a compound of Formula I is carried out with a

suitable alkylating or benzylating agent, L-R_4, wherein L is any leaving group and R_4 is the same as defined earlier.